

Appl. No. 10/811,685
Amdt. dated August 9, 2005
Reply to Office action of June 1, 2005

REMARKS

This response and amendment is filed in response to the Office Action dated April 28, 2005. In this response, claims 1, 16-17, 21-23, 27, 31, 35-37, 43, 47-49, 54, 57 and 61-62 are amended, and claims 12-15, 26, 41-42, 53 and 56 are canceled, such that claims 1-11, 16-25, 27-40, 43-52, 54-55 and 58-62 are pending in this application.

Claims 1-7, 9-15, 23-24, 26-28, 30, 37, 38, 40-42, 49-51 and 53-56 are rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 3,229,475 (Balk et al.) in view of U.S. Patent No. 6,425,255 (Hoffman), and claims 16-20, 29, 31-34, 43-46 and 57-60 are rejected under 35 U.S.C. § 103(a) as being obvious over Balk et al. in view of Hoffman and further in view of U.S. Patent No. 6,619,052 (Nash).

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. In re Vaeck, 947 F.2d 488, 493, 20 U.S.P.Q. 2d 1438, 1442 (Fed. Cir. 1991). Second, there must be a reasonable expectation of success. Id. Finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations. In re Rovka, 490 F.2d 981, 985, 180 U.S.P.Q. 580, 583 (CCPA 1974); MPEP §§706.02(j), 2143.03.

The cited references, when combined or individually, do not teach or suggest all the claim limitations of at least independent claims 1, 23, 37 and 49. Independent claims 1, 23, 37 and 49 all recite a refrigeration merchandiser/unit requiring a linear compressor that provides variable capacity control, a condenser, an expansion device and an evaporator in fluid communication. The refrigeration merchandiser/unit also includes a controller to control operation of the linear compressor that is coupled to the linear compressor, wherein the controller modulates refrigerant capacity in the linear compressor.

Neither Balk et al., Hoffman, or Nash, individually or combined, teach or suggest a refrigeration merchandiser/unit including a linear compressor that provides variable capacity control or a controller that controls operation of the linear compressor by modulating refrigerant capacity in the linear compressor. Balk et al. discloses a refrigeration system 10 including a compressor 18, which is not a linear compressor and is not capable of variable capacity control. Further, the refrigeration system 10 of Balk et al. does not include a controller to control operation of the compressor or modulate refrigerant capacity in the compressor.

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Hoffman discloses use of a linear compressor 40 in a portable air conditioning unit 10, however, the linear compressor 40 does not include variable capacity control. Further, the air conditioning unit 10 of Hoffman does not include a controller to control operation of the linear compressor or modulate refrigerant capacity in the linear compressor.

Nash discloses a refrigeration system 10 including an evaporator coil 18, a fan panel 22 that draws air across the evaporator coil 18, and a control unit 52 to control the rate of air forming air curtain 56 by altering the rate of air blowing from the fan panel 22. However, Nash does not disclose use of a compressor with the refrigeration system. The control unit 52 controls the fan panel 22 based upon environmental sensors 44, 48 within the refrigeration system 10. However, the control unit 52 does not control operation of a linear compressor and does not modulate refrigerant capacity within a linear compressor or a refrigeration system.

Neither Balk et al. nor Hoffman, individually or when combined, teach a refrigeration merchandiser/unit including the subject matter required by independent claims 1, 23, 37 and 49. For example, Balk et al. cannot be modified by Hoffman to include a linear compressor having variable capacity control because Hoffman does not teach or suggest a linear compressor with variable capacity control. Further, neither reference discloses a controller to control operation of the compressor, including by modulating refrigerant capacity in the compressor.

Combining Nash with Balk et al. and Hoffman does not teach or suggest the subject matter of independent claims 1, 23, 37 and 49. Namely, such a combination does not teach a linear compressor with variable capacity control or a controller to operate the linear compressor by modulating refrigerant capacity in the compressor. Nash teaches a control unit for a refrigeration system, however, the control unit does not modulate refrigerant capacity of a linear compressor. Rather, the control unit of Nash controls fans within the refrigeration system based upon environmental sensors to control the rate of air forming an air curtain. Modifying the linear compressor of Hoffman to include the control unit of Nash does not teach or suggest all the claim limitations of the independent claims because the control unit of Nash is not for use with a linear compressor and does not modulate refrigerant capacity of a compressor.

Because the references when combined do not teach all the claim limitations of the independent claims, claims 1, 23, 37 and 49 are allowable and the rejections should be withdrawn. Claims 2-11, 16-22, 24-25, 27-36, 38-40, 43-48, 50-52 and 58-62 depend from allowable independent claims and are therefore allowable as well.

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In view of the amendments and remarks presented herein, Applicant believes that the claims as filed are in condition for allowance and respectfully requests a timely Notice of Allowance be issued for this case. Applicant kindly requests that the Examiner telephone the attorney of record in the event a telephone discussion would be helpful in advancing the prosecution of the present application.

Respectfully submitted,



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